




RESEARCH ARTICLE

Executive coalition building

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Abstract

Why do executive agencies form coalitions? Legislative coalitions are widely theorized and studied, but less attention has been paid to executive coalitions. Executive agencies' dependence on the political branches calls for a distinctive theory of coalition building. This article presents such a theory, arguing that agencies form coalitions to optimize their autonomy given their subordinate position in a separation of powers system by signaling to overseers that their policies are efficient and should be maintained. Bureaucrats form coalitions actively to advance their policy goals in the face of political opposition. Using data on dozens of agencies over seventeen years, I find that agencies are most likely to form coalitions when their preferences are misaligned with the president but aligned with each other. I also find evidence that coalitions send credible signals that bureaucratic policies are efficient since Office of Information and Regulatory Affairs is less likely to request regulatory revisions of policies produced by coalitions.

Keywords: American politics; bureaucratic politics; political institutions; presidents and executive politics

“When we walk in the White House, we’re joined at the hip.”

—Former Secretary of Defense James Mattis to former Secretary of State Rex Tillerson (Woodward 2020, p. 21)

In early 2020, a global pandemic broke out, leading to hundreds of thousands of deaths in the USA and millions worldwide. States and localities rushed to implement social distancing measures and prohibit economic activities that threatened public health while federal public health and emergency agencies began gathering information and developing plans to combat the novel coronavirus. Against the advice of experts, President Donald J. Trump was bullish on a quick return to normal.¹ Governors and other subnational leaders, as chief executives of sovereign entities, protested the President’s minimal response publicly and

¹Wagner, John and Brady Dennis. “Trump wants U.S. economy “opened up and raring to go” by Easter.” *Washington Post* (March 24, 2020). https://www.washingtonpost.com/health/trump-wants-us-economy-opened-up-and-raring-to-go-by-easter/2020/03/24/dced0a12-6d65-11ea-b148-e4ce3fbd85b5_story.html

vociferously.² Bureaucrats in the Trump administration, on the other hand, faced high costs to speaking out against the President – officials from the Centers for Disease Control and Prevention were not allowed to speak to the media,³ and one official was even removed from his post for opposing one of the president’s policies.⁴ In order to influence policy to reflect their expertise, bureaucrats had to turn to alternative approaches.

One such approach was taken by The Centers for Disease Control and Prevention (CDC) and the Federal Emergency Management Agency (FEMA). A coalition of the two agencies – one staffed with public health experts and one with experts in disaster management – produced joint guidelines to reopen the economy that recommended a significantly longer return to normalcy than the president’s public position.⁵ Although President Trump did not adopt the coalition’s recommendations wholly, his plan to reopen the economy moved toward the coalition’s recommended policy.⁶ By collaborating, the CDC and FEMA successfully signaled to the president that he ought to move toward a more efficient policy.

The coalition formed by the CDC and FEMA in response to the pandemic is not exceptional. From intuitive pairings like the Departments of Defense and Veterans Affairs to perhaps less obvious pairings such as the Department of Labor and the National Aeronautics and Space Administration, executive agencies form hundreds of policymaking coalitions each presidential term. These coalitions are responsible for producing almost 3,000 rules between 1997 and 2016 ranging from financial regulation and the implementation of civil rights laws to responses to natural and environmental disasters.

This article asks: why do executive agencies form coalitions? Legislative coalitions in the form of pork-barrel majorities and political parties are widely theorized and studied, but less attention has been paid to how and why agencies in the executive branch form coalitions. In contrast to legislator decisions to form voting blocs and parties, executive agencies are not fully autonomous agents engaged in divide-the-dollar type games; rather they are embedded in a separation of powers system that grants elected politicians substantial authority over them. Executive agencies’ dependence on the political branches calls for a distinctive theory of executive coalition building. This article presents such a theory, arguing that agencies form

²Costa, Robert and Aaron Greg. “Governors and mayors in growing uproar over Trump’s lagging coronavirus response.” *Washington Post* (March 22, 2020). https://www.washingtonpost.com/politics/governors-and-mayors-in-growing-uproar-over-trumps-lagging-coronavirus-response/2020/03/22/98ac569a-6c49-11ea-a3ec-70d7479d83f0_story.html

³Duhigg, Charles. “Seattle’s Leaders Let Scientists Take the Lead. New York’s Did Not.” *The New Yorker* (April 26, 2020). <https://www.newyorker.com/magazine/2020/05/04/seattles-leaders-let-scientists-take-the-lead-new-yorks-did-not>

⁴Shear, Michael D. and Maggie Haberman. “Health Dept. Official Says Doubts on Hydroxychloroquine Led to His Ouster.” *The New York Times* (April 22, 2020). <https://www.nytimes.com/2020/04/22/us/politics/rick-bright-trump-hydroxychloroquine-coronavirus.html>

⁵Sun, Lenna H., Josh Dawsey and William Wan. “CDC, FEMA have created a plan to reopen America. Here’s what it says.” *Washington Post* (April 14, 2020). <https://www.washingtonpost.com/health/2020/04/14/cdc-fema-have-created-plan-reopen-america-heres-what-it-says/>

⁶Freking, Kevin. “A look at new guidance to states on the coronavirus.” *Washington Post* (April 16, 2020). https://www.washingtonpost.com/politics/a-look-at-new-guidance-to-states-on-the-coronavirus/2020/04/16/4e16fa7c-8030-11ea-84c2-0792d8591911_story.html

coalitions as costly signals to political overseers in order to optimize their autonomy given their subsidiary position in a separation of powers system. Bureaucrats form coalitions actively to advance their policy goals in the face of potential political opposition.⁷

I argue that coalition building serves as a costly signal to political overseers that certain bureaucratic policies are efficient or likely to appropriately respond to a policy exigency. Agencies unlikely to see their preferred policies enacted without sanction if they act individually are likely to form coalitions when transaction costs associated with collaboration are sufficiently low. This stands in contrast both to the legislative motivation for coalition building of maximizing distributive benefits and overcoming social choice problems (Aldrich 2011; Baron 1989; Baron and Ferejohn 1989) and the technocratic or apolitical explanation for interagency coordination of information sharing or politically directed coordination where agencies simply implement presidentially led coordination (Freeman and Rossi 2011, 2012; Saito 2020).

This article tests the strategic theory empirically with data on dozens of agencies using data from the *Federal Register* to construct a network of agency coalitions. I find that agencies form coalitions, when doing so optimizes their autonomy given their subordinate position in the American separation of powers system. Agencies form coalitions when the likelihood that individual action will go unsanctioned is low and the transaction costs associated with coalition formation are low, and they do so in order to actively pursue their policy goals in a federal system that grants politicians substantial authority over them. I supplement my theoretical and empirical analyses with interviews from civil servants involved in forming executive coalitions.

Executive coalition building in the American system

As a first-order issue, I consider the legal, procedural, and political constraints on executive coalition building. The average law delegates to almost three executive agencies and about two-and-a-half clauses in the average law delegate authority to more than one actor for the same regulatory activity (Farhang and Yaver 2016, p. 441). Overlapping jurisdictions are commonplace from economic and financial regulation to food safety and border security (Freeman and Rossi 2012, p. 1134). Yet not all laws that delegate to multiple agencies compel coordination. Instead, a majority of interagency policymaking is voluntary initiated by agencies despite no formal requirement to do so either from Congress or the president (Saito 2020). For example, the Federal Deposit Insurance Act delegates to four agencies and provides that “more than one agency may be an appropriate Federal banking agency with respect to any given institution” (Freeman and Rossi 2012), not requiring coordination but providing that coordination may be an option. Other laws, like the Dodd-Frank Wall Street Reform and Consumer Protection Act, authorize

⁷The literature on social movement coalitions has put forward a similar logic where social movement organizations coalesce in response when elected officials’ ideologies are at odds with those of the social movements (see, e.g. McCammon and Campbell 2002; Rochon and Meyer 1997).

interagency coordination and provide that a certain agency shall serve as the coordinator of joint policymaking, but do not require coordination. Further, broad laws governing administrative procedures, like the Administrative Procedure Act and Paperwork Reduction Act, have no explicit procedures or mandates for interagency policymaking, instead allowing agencies to form coalitions with few, if any, procedural requirements.

Legislative authorization, however, is not the only legal basis for executive coalition building. Executive orders and other presidential documents like memoranda may also authorize or facilitate interagency collaboration. For example, President Obama in 2011 issued Executive Order 13,563 which “emphasizes the importance of coordination to reduce regulatory burdens and to simplify and harmonize rules” (Freeman and Rossi 2012, p. 1180). However, the executive order does not mandate coordination, instead stating that agencies “shall attempt to promote . . . coordination.” Thus, while the order mandates that agencies *consider* coordination, it does not mandate that they do in fact coordinate, suggesting that decisions to form coalitions are discretionary choices. The president on occasion has mandated coordination: for example, President Obama’s 2010 issuance of a memorandum directing multiple agencies to collaborate to regulate carbon capture and sequestration (75 FR 6087; Freeman and Rossi 2012, p. 1175). Yet it remains that the majority of executive coalition building is bureaucratically led rather than directed by the president (Saito 2020).

Courts also constrain agencies’ attempts to build coalitions. *Chevron versus National Defense Resource Council* 467 USA 837 (1984) is the controlling law concerning whether agency interpretations of legislation are appropriate. *Chevron* requires first that a court determine whether a law delegates, second whether there is ambiguity in a statute, and third whether an agency’s interpretation of the ambiguous clause is reasonable. Legal scholars argue that agency coordination should make it easier for agencies to survive *Chevron* review since coordinating to produce a joint policy implies the agencies have all first understood the law to delegate, second that a statute is ambiguous, and last come to the same interpretation of the ambiguous clause (Freeman and Rossi 2011, p. 1203–9).

Extant and controlling case law classifies statutes into one of three schemes: (1) “generic statutes like the [Administrative Procedure Act], [Freedom of Information Act], and [Federal Advisory Committee Act],” (2) those “where the agencies have specialized enforcement responsibilities but their authority potentially overlaps,” and (3) those “where expert enforcement agencies have mutually exclusive authority over separate sets of regulated persons” (*Collins versus National Transportation Safety Board* 351 F.3d 1246 (D.C. Circuit 2003)). When agency interpretations conflict, only in the first two cases may courts review the policy *de novo*; in the third case, each agency is entitled to *Chevron* deference even if they come to opposing interpretations. Therefore, agencies implementing laws of the first two types, of which many statutes belong, may overcome legal challenges by coordinating to set the same policy, signaling to courts that even under *de novo* review, the negotiated policy should stand.

What is more, courts have the authority to interpret legislation only to allow some of the agencies delegated to implement the law. In *Couer Alaska versus Southeast Alaska Conservation Council* 557 USA 261 (2009), the Supreme Court held that a rule jointly promulgated by the EPA and Army Corps of Engineers under the Clean Water Act was entitled to *Chevron* deference, but only because the court

viewed the Army Corps of Engineers as the appropriate regulatory body despite each agency coming to the same interpretation of the law and jointly promulgating a rule. Therefore, if two agencies have overlapping authority but there is uncertainty about whether each constituent agency has authority to implement a subset of the authorizing statute, collaboration may help those agencies survive a legal challenge since the union of their authorities may be larger than the intersection. Additionally, when agencies with overlapping jurisdictions come to *different* interpretations of the same law, courts may unilaterally decide which agency maintains the authority to regulate pursuant to the overlapping law (*Martin versus Occupational Safety and Health Review Commission* 499 USA 144 (1991)), so failing to form a coalition could result in the complete revocation of authority for one of the constituent agencies. These two cases, *Coeur Alaska* and *Martin*, jointly stand for the proposition that courts may decide which agency has authority to implement parts of a statute *regardless* of whether those agencies come to the same interpretation, highlighting the benefits of coalition building in the shadow of litigation.⁸

Congress, the president, and the courts each constrain both agencies' ability to form coalitions and the costs and benefits of engaging in coalition building. Yet contemporary research indicates that the majority of agency coalitions are bureaucratically led, rather than induced by Congress, the president, or the courts (Saito 2020). That is to say, while the three main branches of government constrain the behavior of bureaucrats, they do not determine it unilaterally. Therefore, executive coalition building is an often discretionary action taken by agencies and ought to be the focus of serious scholarly attention since, among other societal benefits, coalitions can help reduce regulatory redundancies, standardize regulations, and facilitate information sharing among agencies occupying similar regulatory spheres.⁹ Below I provide a theory of executive coalition building that takes seriously the institutional station of executive agencies in the American separation of powers system.

Bureaucratic strategy and executive coalitions

A growing body of literature on bureaucratic politics argues convincingly that bureaucrats act strategically, particularly with respect to policymaking (Lowande 2019; Potter 2017, 2019; Potter and Shipan 2017; Shipan 2004). Of central concern

⁸My argument parallels the legal argument but instead of coalition building serving as a signal of compliance with *Chevron* or to avoid a court from stripping an agency of its authority, instead it serves as a signal to political overseers that the policy is efficient or best, a criterion not considered by courts when reviewing whether agencies followed the proper procedures or have the proper authority.

⁹In consultation with an attorney and expert in administrative law, I also took a random sample of one hundred jointly produced rules in my data and examined whether they were promulgated pursuant to laws that required joint rulemaking. Only five percent of those one hundred rules were promulgated pursuant to laws that require coordination. Most laws did not require coordination either by omitting any requirements for coordination or with explicit clauses releasing agencies from coordination requirements. For example, the Departments of Agriculture and Transportation promulgated a joint rule in 1996 pursuant to the 42 U.S.C. 106, which explicitly states the "administrator [of the Federal Aviation Administration] . . . shall not be required to coordinate, submit for approval or concurrence, or seek the advice of views of the Secretary [of Transportation] or any other officer or employee."

to bureaucratic agents is the optimization of their autonomy since agencies derive no formal authority independent of the constitutional branches. Agencies can achieve autonomy through various means such as delaying policymaking until congressional, presidential, or judicial conditions are more favorable (Potter 2017, 2019) or leveraging diverse networks of political support (Carpenter 2001). The techniques to achieve bureaucratic policy goals and autonomy uncovered in prior work, however, are all confined to single agencies – they consider how individual agencies respond to political conditions and pursue their policy goals given political and legal constraints (see, e.g. Gailmard and Patty 2012). Overlooked, however, is how agencies might build coalitions and collaborate strategically to optimize their autonomy and achieve their policy goals.

Work on networked governance has considered how agencies collaborate with each other and private entities (Freeman and Rossi 2011, 2012; McGuire 2006; Resh et al. 2014; Siddiki et al. 2017), yet it often fails to consider the political environment in which agencies operate. Several studies do consider how overlapping jurisdictions affect bureaucratic policymaking, but they either focus on congressional incentives to concentrate or fragment authority (Bils 2019; Farhang and Yaver 2016; Ting 2003) or how overlapping jurisdictions might create inefficiencies like free-riding, turf wars, or preference cycling (Bils 2019; Hammond and Miller 1985; Herrera, Reuben and Ting 2017; Napolio and Carr Peterson 2019; Ting 2003). Here, however, I argue bureaucrats take advantage of overlapping jurisdictions by building coalitions in order to forge autonomy and achieve their policy goals.¹⁰ Agencies build coalitions actively to advance their goals in the face of political opposition.

Building coalitions when agencies have overlapping jurisdictions provides at least three potential benefits to the constituent agencies' pursuit of autonomy and policy goals. First, since coalition building involves transaction costs, it may serve as a costly signal to political overseers that the policy resulting from the coalition is particularly important, ripe, or well-supported by the public and therefore induce principals to let the rule stand as a matter of public policy or for electoral concerns. In other words, policymaking via coalitions may transmit credible information about the importance or efficiency of policy from a more informed agent to a less informed principal. Second, collaboration forces overseers, like the President, to distribute any sanction across multiple agencies thereby either diluting its effect on each individual agency or inducing the overseer to raise the severity of the sanction and incur a larger cost, both of which lower the probability that a sanction will have the deterrence effect desired by the principal. Third, coalition building may help agencies make a better or more efficient policy by combining resources and information (see, e.g. Austen-Smith and Banks 1996). In an interview with the researcher in November 2020, a civil servant involved in executive coalition building in a large independent regulatory agency stated that the policies their agency produces jointly are made better by learning from the expertise of the agencies with whom they collaborate, but that the process can be quite cumbersome.

¹⁰Some work in the public administration literature argues that coalition formation may be driven by *power dependency*, or stronger agencies coercing weaker agencies to collaborate to further the interests of the stronger one (see, e.g. Hjern and Porter 1983). In Appendix B, I test this theory and find little evidence for power dependency.

Agencies do not experience these coalitional benefits identically, however. Agencies that are ideologically aligned with their overseers can easily promulgate their preferred policies without collaboration (see, e.g. Shipan 2004), so coalition building introduces costs for little or no benefit as there is neither a need to signal nor dilute a sanction. Additionally, the transaction costs associated with collaboration almost certainly vary among potential coalitions where factors like ideology and capacity affect the cost of coalition building. Paraphrasing one bureaucrat: it can be difficult to bargain because the missions, motivations, and commitments of agencies can be quite different.¹¹ Together, these imply that those agencies best positioned to build coalitions are those for which the probability of achieving their preferred policies by policymaking on their own is low and the transaction costs associated with collaboration are low.

Ideology – or preferences over policy alternatives – affects both of these conditions. Ideological proximity among agencies lowers transaction costs associated with coalition building and ideological distance from overseers decrease the probability that individual policymaking will go unsanctioned. Agencies aligned with each other must give up less to come to consensus since, in spatial terms, the bargaining region between each agency's ideal points is small when those agencies are aligned and any policy in the bargaining region is relatively close to each agency's ideal point. Here, I focus on the President as a political overseer since bureaus in the Executive Office of the President like the Office of Information and Regulatory Affairs (OIRA) and Office of Management and Budget are the first major political hurdles agencies must face when pursuing policy (Bolton et al. 2016; Haeder and Webb Yackee 2015, 2018; Potter 2017, 2019). Below I expand my theoretical argument, taking seriously the institutional station of bureaucratic agents and their desire for autonomy given their subsidiary positions in the American separation of powers system.

Coalitions as costly signals and insurance

Executive agencies are tasked with the implementation of policies passed by the political branches. Often, the political branches create policy with broad strokes, leaving room for bureaucratic interpretation to fill in the details. Thus, agencies must use their discretion and expertise to produce policies both consistent with their principals' intent and their own preferences over policy, whether those preferences come from ideological leanings, professional expectations, expertise, or elsewhere. Therefore, bureaucrats face a constrained optimization problem where, on the one hand, they want to produce the most efficient policy from their informed perspective, and, on the other, they must not produce policy that is too far from the preferences of their political overseers to avoid sanction or backlash.¹²

Bureaucrats often have an informational advantage in their policy area relative to their principals. Bureaucrats can exploit that informational advantage to signal to political overseers that the decision the bureaucrats have made is efficient. For

¹¹Interview with federal civil servant, November 2020.

¹²Sanctions could include dragging the agency before a committee hearing, requesting a small budget in the following year, publicly embarrassing the agency, removing appointees, etc.

bureaucrats' decisions to collaborate to serve as an informative signal to principals about the efficiency of their policy choices, it must be the case that, all else equal, it is less costly to collaborate when rulemaking is efficient than when it is not (Spence 1978). The procedural barriers to rulemaking in the Administrative Procedure Act and the Paperwork Reduction Act make the cost of rulemaking quite high since agencies have to engage in notice-and-comment rulemaking and submit their proposed policies to OIRA for review. If agencies wish to produce an inefficient or unnecessary rule, administrative procedures allow for affected parties to alert Congress that the agencies are engaged in superfluous policymaking (McCubbins et al. 1987; McCubbins and Schwartz 1984). Therefore, the cost of convincing other agencies to produce a superfluous policy is likely higher than the cost of convincing other agencies to produce a necessary one, as interested parties can easily alert political overseers that the agencies are engaged in regulatory overreach and principals can sanction the agencies.

As a concrete example of a situation requiring policymaking, after the Deepwater Horizon oil spill in 2010 – an environmental disaster requiring policy production – a coalition comprising the Department of Homeland Security and the Environmental Protection Agency formed a coalition to promulgate a joint rule to “suspend oil spill response time requirements, and certain identification and location requirements, for facilities and vessels whose response resources are relocated in support of the Deepwater Horizon [Spill of National Significance] response” (75 FR 37,712). A response was clearly important and efficient and the transaction costs associated with forming a coalition to address the spill were likely low since both agencies knew that a policy response was necessary.

However, the cost of coalition building is not solely determined by the expected efficiency of the policy the coalition will produce. *Ex ante* ideological alignment among agencies also reduces the cost of coalition building. Two liberal agencies, like the EPA and the Department of Health and Human Services, can likely come to consensus about the best policy while incurring lower costs than one liberal and one conservative agency, like the EPA and the Department of Defense, would. In simple spatial models where multiple parties must agree to change policy, the smaller the space between parties, the more likely it is that the bargained outcome will be closer to the ideal points of at least one of those parties.

The strategic opportunities for the agents, then, are first to form a coalition when they expect political opposition, second to bluff about the efficiency of the policy to avoid a sanction, or, third, if a sanction is inevitable, to form a coalition as insurance to dilute the sanction. Agencies' informational advantages offer them the opportunity to bluff about the efficiency of their policies and convince principals not to sanction a superfluous policy by manipulating principals' information about the efficiency of the coalition's policy choice. The following two sections discuss the implications of the theory through the mechanisms of costly signaling and insurance.

Costly signals

The political decision to delegate requires elected officials to forgo perfect information over the policies they create, setting up the principal-agent problem endemic to bureaucratic politics. Executive agencies' informational advantage

provides them with an important means to achieve the policy goals they desire by making either their actions or information partially hidden from principals. Since bureaucrats have more information and expertise about certain policy areas than do elected officials, there are incentives for bureaucrats to provide biased information to principals in order to move policy in the direction bureaucrats desire.¹³ The incentive to provide biased information, however, is only present when truthfully revealing information would result in a worse outcome for the agency.

The information bureaucrats can provide to principals varies but often comprises technical information about which policy or what level of regulation is most efficient or would result in the best social outcome. For example, the Centers for Disease Control and Prevention can provide information about the appropriate response to the outbreak of a pandemic, the Environmental Protection Agency can provide information about the most efficient reduction in hydrofluorocarbon production among major firms, and the Department of Veterans Affairs can provide information about the appropriate number of beds per capita to allocate to VA hospitals.

Occasionally, this information is transmitted directly from agencies via testimony or other formal communication so that Congress or the President can create an appropriate policy. Often, however, principals have delegated policymaking authority to agencies and installed procedural technologies to oversee agency policymaking processes and sanction agents who stray too far (McCubbins et al. 1987). In these situations, the policy itself, and the process used to create it, can convey information to political principals. Political and oversight decisions concerning the merit of delegated policymaking then occur after promulgation rather than before a policy is made.

In situations where the process and policy themselves convey information, bureaucrats can signal strategically the efficiency, importance, ripeness, or appropriateness of the policies they produce. One way to do this might be through a cost-benefit analysis. For example, if the Department of Veterans Affairs wants to produce a rule that would allocate more beds to a district controlled by a member of Congress that has antagonized the President, the agency might conduct a cost-benefit analysis to signal to the President that the decision is efficient, even if the President would otherwise prefer more beds to be allocated to a politically friendly district.

I argue that forming a coalition sends a similar signal about the efficiency, importance, ripeness, or appropriateness of bureaucratic policies. Rather than forming coalitions to maximize distributive benefits or overcome social choice problems like legislators do, executive coalition building sends a credible signal to political overseers that the agencies' expertise ought to be respected, and therefore that the coalition of agencies ought to be afforded the autonomy to produce policies that perhaps are not their overseers' most-preferred alternative.

However, like conducting a cost-benefit analysis, forming a coalition entails a cost. Agencies must seek out another agency with which to form a coalition, convince the other agency to form a coalition, and bargain over the policy that coalition will produce. In an interview with the researcher, a civil servant stated that

¹³The existence of such a bias, however, need not be undemocratic or inefficient. As Miller and Whitford (2016) argue, bureaucratic discretion—even when it results in policies that conflict with what a legislative majority might enact—is often efficient.

the process for producing joint policy can be quite onerous.¹⁴ First, a working group of regulators from each agency convenes to produce a draft of a regulation, then the working group sends it up the chain of command of both agencies for approval, next the group must reconvene to incorporate any edits from the senior civil servants of each agency. This process is continued until all relevant actors are satisfied with the policy. These procedures are layered on top of the already taxing process for promulgating rules.¹⁵ Given the additional costs associated with executive coalition building, building coalitions to signal the appropriateness of a policy should only be undertaken by agencies when they are unlikely to achieve autonomy if they act alone, that is, when political overseers hold conflicting preferences over some set of alternatives. Therefore, misaligned preferences between agents and principals are a necessary condition for coalition building to be the best response.

Misaligned political overseers, however, are not sufficient for executive coalition building to be the best response on the part of the agencies. As a simple counterexample, if two agencies are misaligned with their political overseers but the two agencies are extremely misaligned with each other, the cost of forming a coalition will be greater than any potential benefit from avoiding a sanction and the agencies will elect not to form a coalition. Therefore, the cost of coalition building must be sufficiently low as well. If the transaction costs associated with coalition building exceed the potential sanction, agencies are better off not coordinating. Even if agencies could increase the probability their policy goes unsanctioned by forming a coalition, if that increase is offset by the high cost of forming a coalition, the agencies are better off not collaborating. Therefore, the confluence of low transaction costs and misalignment with political overseers is necessary for agents to form policymaking coalitions.¹⁶

Insurance: sanction dilution

Executive coalitions may also be useful not as a costly signal, but as a means of diluting a likely sanction. If the principal is sufficiently misaligned with the agencies or has sufficiently high beliefs that the policy is not efficient, it will always sanction regardless of the signal it receives. Therefore, under certain conditions, agencies will form a coalition not to signal that the policy is efficient, but rather to brace themselves for the inevitable sanction and to dilute it by sharing the cost.

¹⁴Interview with federal civil servant, November 2020.

¹⁵As a basic check to validate the assumption that forming a coalition to make policy is costly, I consulted Potter's (2017) dataset of time from when a rule is proposed to the time that it is finalized. The average time to finalization for rules promulgated by only one agency is 15 months (standard error of 0.11 months) and for rules promulgated by multiple agencies is 21.3 months (standard error of 2.99 months), implying that it takes more time and is costlier to form coalitions than it is to promulgate a rule individually. In fact, the mean time to finalization for rules promulgated by coalitions is longer than 81% of the time to finalization of rules promulgated individually.

¹⁶Because the transaction costs associated with coalition formation are never zero, any coalition can serve as a signal of efficient (or socially necessary) policy. However, when ideologically induced transaction costs are too high (*i.e.* agencies are extremely misaligned), the benefits those agencies receive do not outweigh the costs associated with coalition formation. Therefore, agencies that are ideologically aligned are likely to form coalitions as signals because transaction costs are low enough such that forming a coalition is feasible, but not so low that coalition formation does not encode any information about the ripeness of the policy.

Specifically, if agencies are extremely misaligned with their political overseers but nonetheless face pressure from interest groups or the public to produce a policy, the agencies can reasonably be sure that they will be sanctioned if they make policy. Thus, anticipating a sanction, agencies can form a coalition as a sort of insurance to spread risk among multiple agencies and dilute a sanction.

As with costly signaling, the incentive to form a coalition to dilute a sanction varies with the transaction costs associated with forming a coalition. Specifically, the transaction costs associated with forming a coalition must be less than the cost of the diluted sanction for the constituent agencies. Therefore, like in the case of costly signaling, principal misalignment and low transaction costs are both necessary for agents to form coalitions. When agencies are *extremely* misaligned with principals, coalitions are likely motivated by sanction dilution.

Empirical implications

The theory above implies two relevant hypotheses for agency behavior. First, agency decisions to build coalitions vary with the transaction costs associated with collaboration. As transaction costs rise, the probability of coalition building decreases. All else equal, as transaction costs rise coalitions become increasingly unsustainable. On the other hand, all else equal, if transaction costs decrease, coalition building becomes more likely. Transaction costs are almost certainly lower among agencies with similar preferences over policies. Agencies with similar policy preferences do not have to compromise as much as those with dissimilar preferences since the policy similar agencies can both agree too is likely closer to each agency than the compromise policy among agencies with dissimilar preferences. Therefore:

Hypothesis 1. Ideologically proximate agencies are more likely to form coalitions than ideologically distant ones.

Second, agency misalignment with the principal is a necessary condition for coalition building. In the case of costly signals, the agents need to send a signal to convince their principals that they should let the coalition's policy stand. If the principal agreed to the policy *ex ante*, the need to signal would be obviated since the principal would let the policy stand without sanction. And in the case of sanction dilution, only when the agencies are misaligned with the principal do they rationally expect that they cannot avoid a sanction. Therefore:

Hypothesis 2. Among ideologically proximate agencies, those ideologically distant from the President are the most likely to form coalitions.

Hypothesis 2 is this article's main theoretical contribution since it implies agencies form coalitions only if they are misaligned with political principals in order to optimize their autonomy given their subsidiary positions in the American separation of powers system. Whereas legislators enter into coalitions to maximize individual distributive gains and overcome social choice problems, agents in the executive branch enter into coalitions to signal to overseers that their autonomy ought to be respected, despite their dependence on political overseers who may

otherwise disagree with the policy output of bureaucratic authority. In other words, upon observing political conditions unfavorable to their goals, agencies form coalitions to get what they want, but only if the transaction costs associated with collaboration are sufficiently low.

The theory also implies one relevant hypothesis for presidential behavior. Since agencies moderately misaligned with the President are best positioned to signal successfully that their policies are efficient, the President should be least likely to sanction policies produced by coalitions moderately misaligned with the President. When agencies are perfectly aligned with the President, there is no need to signal via coalition formation, so when agencies do form coalitions the President may not see them as an actual indication of quality. Likewise, agencies that are extremely misaligned with the President will likely face sanction regardless of what they do. Agencies moderately misaligned are best positioned to send a clear signal since the President could be convinced via signaling that the policy is efficient but does not necessary for or against those agencies' policy preferences *ex ante*. This implies the last hypothesis:

Hypothesis 3. The relationship between presidential misalignment and the probability of sanction is U-shaped with a minimum for moderately misaligned agencies.

Data and empirical analysis

Before presenting the results from my main analyses testing my theory, I provide several descriptive findings from the coalition network I generated with data from the *Federal Register*. The dataset comprises 496 pairs of thirty-two agencies over five presidential administrations. I define coalitions as groups of agencies aggregated to their highest levels that promulgate at least one joint rule in a presidential term. For example, a pair comprising the Agriculture Marketing Service and Agricultural Research Service, both in the Department of Agriculture, does not constitute a coalition, but a pair comprising the Agricultural Marketing Service and the Bureau of Economic Analysis in the Department of Commerce does. This suggests that the counts I have produced here are somewhat conservative, but using lower levels of agencies as units would likely present a confound in my analysis since sub-bureau independence from their parent agencies and authority to engage in rulemaking vary.

Table 1 displays the count and proportion of coalitions formed by presidential term from 1997 (Clinton's second term) to 2016 (Obama's second term).¹⁷ The rate of coalition formation was highest during Clinton's second and Bush's first term, with about 36% of potential agency pairs forming coalitions. The rate of coalition formation then dropped to about 12% on average from Bush's second to Obama's second terms. Aggregating from 1997–2016, about 28% of potential agency pairs formed coalitions.¹⁸

¹⁷See Appendix A for a description of the agencies included in the analysis.

¹⁸Repeat coalitions are relatively rare: 73% of agency pairs only formed one coalition over the time period.

Table 1. Coalition formation by presidential term

Presidential Term	Coalitions Formed	Possible Coalitions	Proportion Coalitions
Clinton II (1997–2000)	164	465	0.353
Bush I (2001–2004)	187	496	0.377
Bush II (2005–2008)	96	496	0.194
Obama I (2009–2012)	32	496	0.065
Obama II (2013–2016)	194	496	0.104
Aggregate	673	2,449	0.275

Note: Includes only presidential terms for which data from the first to last day of the term were available from the *Federal Register's* API. There are fewer possible coalitions in Clinton's second term because the Department of Homeland Security had not yet been created.

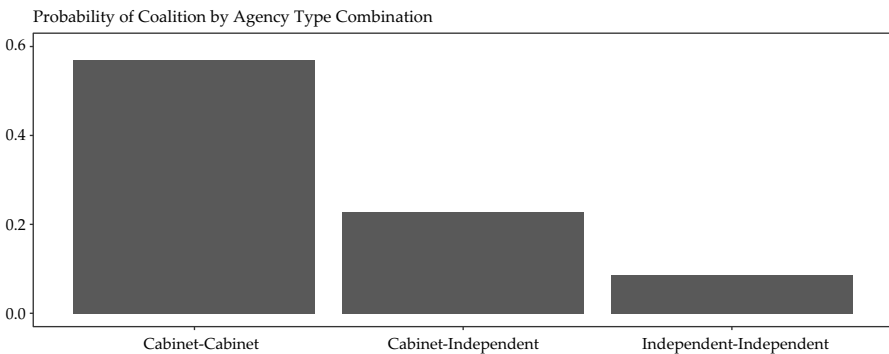


Figure 1. Coalition Formation by Agency Type Combination, 1997–2012. Probability calculated as the proportion of dyad-years of each combination that formed a coalition. Eighteen percent of observations are Cabinet-Cabinet, 51% are Cabinet-Independent, and 31% are Independent-Independent.

With these data from the *Federal Register*, I then constructed a coalition network where each node or vertex is an agency and each edge or tie is the count of rules jointly promulgated by the coalition comprising the two node agencies at any point from 1997–2012.¹⁹ Eight of the thirty-two agencies never formed a coalition from 1997–2012, but the pooled network density among the remaining thirty-two agencies is quite high at about 68%, meaning more than two-thirds of all possible agency pairs formed a coalition together from 1997–2012. When including all agencies, including those that never formed a coalition, the network density is about 47%.

Figure 1 displays the probability of coalition building for pairs of agency structures. Cabinet departments, on average, are more likely to form coalitions than other types of agencies, particularly with other cabinet agencies. However, the network generally shows little evidence of homophily, or the tendency of like units to form coalitions, with respect to agency structure. In fact, the assortativity coefficient – a measure of homophily which ranges from -1 (if only dissimilar

¹⁹I limit the dataset I use for the main analysis to these terms since I am only able to collect sufficient data for my analysis during those years. Ideal point estimates at the agency level are only available through 2012.

Table 2. Most and least central agencies

Agency	Degree	Agency	Betweenness
DOC	23	OPM	106
DOT	23	SSA	69
VA	23	CPSC	42
DOD	22	DHS	28
DOJ	22	TREAS	26
⋮	⋮	⋮	⋮
CPCS	12	RRB	0.50
RRB	4	NRC	0.42
EEOC	3	FCC	0.33
FCC	2	FTC	0
FTC	1	EEOC	0

Note: Table only includes agencies that formed at least one coalition between 1997 and 2012. Eight agencies never formed a coalition.

Key: DOC = Department of Commerce; DOT = Department of Transportation; VA = Veterans Affairs Department; DOD = Department of Defense; DOJ = Department of Justice; CPSC = Consumer Product Safety Commission; RRB = Railroad Retirement Board; EEOC = Equal Employment Opportunity Commission; FCC = Federal Communications Commission; FTC = Federal Trade Commission; OPM = Office of Personnel Management; SSA = Social Security Administration; DHS = Department of Homeland Security; TREAS = Treasury Department; NRC = Nuclear Regulatory Commission.

nodes form ties) to 1 (if only similar nodes form ties) – is only -0.09 , indicating that there is little support for homophily with respect to agency structure. Instead, the relatively large probability of cabinet departments forming coalitions with other cabinet departments is an artifact of cabinet departments' general predisposition toward collaboration, perhaps due to their broader jurisdictions.²⁰

Next, I turn to agency-level measures. Table 2 displays degree and betweenness measures of centrality for the five most and least central agencies in the pooled network. The most central agency by degree – the number of unique connected agencies – is the Department of the Treasury and the most central agency by betweenness – a measure of how well each agency connects other agencies to the network – is the Office of Personnel Management.²¹ The most central agencies uncover patterns that largely comport with conventional wisdom about the importance of different agencies. Agencies with the highest degree measure are mostly cabinet departments, which have broad jurisdictions and therefore likely have more opportunities to form coalitions. The agency with the highest betweenness measure is OPM, an agency that manages the USA civil service.

Last, I consider how overlapping jurisdictions influence the opportunity structure for coalition formation. As implied by the institutional powers granted to bureaucratic agencies, the opportunity to form coalitions should be limited only

²⁰Formally, the assortativity coefficient is calculated as: $\frac{Tr_e - \frac{||e^2||}{1 - ||e^2||}}$ where e is an adjacency matrix where each row and column is a dyad type and each entry is the proportion of edges realized among that dyad type. Tr_e , the trace of the matrix, is the main diagonal where each entry is the proportion of edges realized among dyad types where each node belongs to the same dyad type. An assortativity coefficient of 1 would indicate that only like nodes form ties and an assortativity coefficient of -1 would indicate that nodes only form ties with dissimilar nodes.

²¹Formally, betweenness is calculated as follows: $B(v) = \sum_{s \neq v \neq t} \frac{\sigma_{st}(v)}{\sigma_{st}}$ where σ_{st} is the number of shortest paths between nodes s and t and $\sigma_{st}(v)$ is the number of those paths that pass through node v .

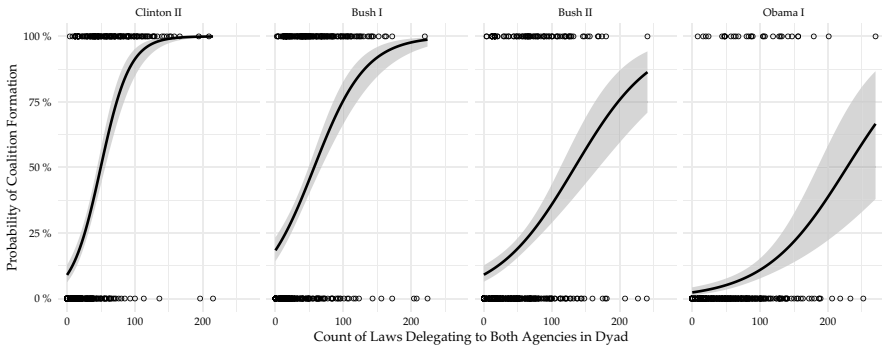


Figure 2. Probability of Coalition Formation by Number of Overlapping Laws. Points represent dyads. Curves and ribbons estimated with bivariate logistic regression.

to those agencies with overlapping jurisdictions. To test this, I found the number of significant laws since 1947 that delegate to each agency dyad in each presidential term from McCann and Shipan (2022). No dyads with no overlapping laws formed a coalition from 1997–2012, and the probability of coalition formation is increasing in the number of overlapping laws, as evidenced by Figure 2.

Empirical test of the theory

With these data from the *Federal Register*, I then created a panel dataset where each observation is an agency dyad during a presidential term. The data comprise 1,953 observations at the dyad-term level. In total, the analysis comprises thirty-two agencies, 496 dyads, and four presidential terms. Thirty-one of the agencies appear each term (the only one that does not is the Department of Homeland Security, which was created during Bush’s first term). Combining each of the agencies that appear in all terms into pairs yields 465 dyads ($\frac{31!}{29!2!}$) which when multiplied by four terms is 1,860. Then, the Department of Homeland Security forms a pair with each of the remaining thirty-one agencies over the three terms it was in operation, adding 93 to the number of observations to arrive at the final dataset of 1,953 observations.

The dependent variable is a binary indicator of whether each dyad-term formed a *Coalition* to promulgate a joint rule, which I define as any coalition of two or more agencies from different department-level organizations (e.g. Department of Agriculture, Environmental Protection Agency, Department of Defense).²²

The two independent variables of interest are *agency alignment* and *presidential misalignment*. I measure *agency alignment* as the Euclidean distance between the Chen and Johnson (2015)²³ ideal point estimates of agency ideology of the two agencies forming the dyad in each term multiplied by negative one so that larger

²²All analyses are robust to an alternative dependent variable measuring the count of rules promulgated by each dyad-term coalition (see Appendix C.4).

²³These measures calculate the dollar-weighted NOMINATE score of members of Congress receiving campaign donations from bureaucrats and therefore capture a weighted average of the ideology of employees of the federal bureaucracy ranging from appointees to career civil servants. These are estimated on the same scale as DW-NOMINATE.

values represent more alignment among agencies in a dyad. I measure *presidential misalignment* as the average Euclidean distance between the Chen and Johnson (2015) ideal point estimates of agency ideology of the two agencies forming the dyad and the President's DW-NOMINATE ideal point estimate in each term.²⁴

I also include six control variables. The first set of control variables adjusts estimates for the political context and environment. These variables are important to include because they may be correlated with alignment among agencies and misalignment among agencies and presidents, and causally related to agencies' decisions to form coalitions since the general political environment determines both of these via delegations, appointments, and the expected responses on the part of Congress. First, I include *overlapping laws*, which I measure as the number of significant laws since 1947 that delegate to both dyads in a given presidential term (Mayhew 2005; Peterson 2018), and which controls for the statutory opportunity to form coalitions, proxying for congressionally mandated coordination. Second, I include *presidential attention*, which I measure as the logged count of presidential documents published in the *Federal Register* (e.g. executive orders, memoranda) that mention at least one of the agencies forming the dyad, which controls for how important those agencies are to the president's agenda and proxies for presidentially mandated coordination. Third, I include *House misalignment*, which I measure the same way as *presidential misalignment*, but substituting the President's DW-NOMINATE ideal point estimate for the USA House of Representative's median member's DW-NOMINATE ideal point estimate, and *Senate misalignment*, substituting the President's DW-NOMINATE ideal point estimate for the USA Senate's filibuster pivot's DW-NOIMINATE ideal point estimate, which controls for the expected congressional response to agency policy. Fourth, I include *court misalignment*, which I measure the same way as *presidential misalignment*, but substituting the President's DW-NOMINATE ideal point estimate for the judicial common space ideal point estimate of the median justice of the Supreme Court (Epstein et al. 2007), and which controls for the expected judicial response to agency policy.

The second set of control variables adjusts estimates for the relationship and similarities between agencies forming the dyad. It is important to include these control variables because they are correlated with agency alignment and presidential misalignment, and possibly causally related to decisions to form coalitions by influencing things like capacity and responsiveness to the President. First, I include *total rules*, which I measure as the logged count of the total number of rules individually promulgated by each agency in a given presidential term, and which controls for the baseline productivity of the agency dyad. Second, I include *employment difference*, which I measure as the natural log of the absolute value of the difference between the total number of employees working within each agency forming the dyad in each term, which controls for the difference in capacity between

²⁴The analysis is robust to an alternative operationalization of *presidential misalignment* as the distance between the agency closest to the President and the President. Appendix C.6 reports results from estimating the main models with this alternative operationalization. One concern with this measure is that if the President's ideal point is between the two agencies', the average distance may be close to zero despite both agencies being distant from the President. However, there are no cases of the President between the two agencies in the data.

the agencies forming the dyad. Third, I include *politicization difference*, which I measure as the absolute value of the difference between the politicization ratio of each agency forming the dyad in each term, and *average politicization*, which I measure as the average politicization ratio for the two agencies forming the dyad,²⁵ which controls for the difference in presidential attempts to control agency policy.²⁶

With these data, I first center *agency alignment* and *presidential misalignment* to zero as their means to ease in interpretation of the interaction effects, and then, I estimate the following general model via least squares:²⁷

$$\Pr(\text{Coalition}_{it}) = \beta_1 \text{Agency Alignment}_{it} + \beta_2 \text{Presidential Misalignment}_{it} + \beta_3 \text{Agency Alignment}_{it} \times \text{Presidential Misalignment}_{it} + \xi \mathbf{X}_{it} + \alpha_i + \delta_t + \varepsilon_{it} \quad (1)$$

where subscript i indexes agency dyads, subscript t indexes presidential terms, \mathbf{X} is a matrix of dyad-level, time-varying covariates, ξ is a vector of coefficients attending \mathbf{X} , α is a vector of agency dyad fixed effects, and δ is a vector of presidential term fixed effects. Standard errors are clustered by dyad. Hypothesis 1 implies the average effect of agency alignment is positive and hypothesis 2 implies the marginal effect of agency alignment is increasing in presidential misalignment, implying $\beta_3 > 0$.²⁸

This empirical strategy allows me to identify the effects of the independent variables within each dyad and absorb any term-level exogenous shocks. The dyad fixed effects control for any time-invariant features of each agency in the dyad and the relationship between those agencies, such as the structure of each agency, whether they meet the necessary condition for coordination by having overlapping jurisdictions,²⁹ and unobservable aspects of their working relationship, allowing me to estimate within-dyad effects. The presidential term fixed effects control for any common exogenous shocks such as the terrorist attacks in 2001, the financial crash

²⁵I measure politicization as the ratio of political appointees over the number of career senior executive service members following previous work (see, e.g. Lewis 2010; Lowande 2019).

²⁶Since many of these variables vary each quarter, year, or Congress, I take the average value of each over the full presidential term. All analyses are robust to estimating models at the dyad-year level where these vary more frequently (see Appendix C.3).

²⁷I use least squares, i.e. a linear probability model, for a few reasons. First, since I use dyad and year fixed effects, any maximum likelihood-based approach like logistic or probit regression would drop any year or dyad that never or always featured a joint rule, biasing the dataset (Beck 2018, 2020; Rodríguez and Goldman 1995). Second, the well-known problems with using least squares on binary dependent variables (heteroskedasticity, unrealistic predictions, and bias in small samples) are all inconsequential since I use heteroskedasticity-robust standard errors, am not interested in fitted values, but rather estimated coefficients, and the sample is quite large (see, e.g. Hellevik 2009; Wooldridge 2010). Third, logistic and probit regression render the interpretation of interaction terms unclear (Ai and Norton 2003). Last, parameters estimated with logistic regression are biased when variables are omitted *even if* the omitted variables are uncorrelated with the variable of interest (Mood 2010). That said, the results are robust to estimating a logistic regression (see Appendix C.1).

²⁸Formally, hypothesis 2 implies the mixed partial derivative of the function first with respect to *agency alignment* then with respect to *presidential misalignment* is greater than 0, or $\beta_3 > 0$.

²⁹While this strategy almost certainly includes irrelevant dyads that share no overlapping jurisdictions, doing so will skew any coefficient toward zero and therefore not raise the probability of false positives. Further in Appendix C.5, I subset the data only to dyads with at least one law delegating to both agencies since 1947 and the results are substantively unchanged.

Table 3. Cross-tabulation of probability of coalition formation

		President	
		Aligned	Misaligned
Agencies	Aligned	0.206 (0.017)	0.303 (0.019)
	Misaligned	0.220 (0.022)	0.241 (0.021)

Note: Cell entries report the probability of coalition formation. Standard errors reported in parentheses. Observations are classified as misaligned if the value of the relevant variable is below the mean of alignment and aligned otherwise. Probability calculated as the proportion of dyad-term's forming coalitions in each of the four combinations of agency and presidential (mis)alignment. The probability of coalition formation among aligned agencies with misaligned presidents is significantly distinguishable from the other three conditions at the 0.001 level, and the other three conditions are statistically indistinguishable.

in late 2000s, first and second term effects, and the unique administrative styles of each President.

Results

First, Table 3 reports the cross-tabulated probabilities of coalition formation splitting the sample into four categories: ideologically aligned agencies aligned with the President, ideologically aligned agencies misaligned with the President, ideologically misaligned agencies aligned with the President, and ideologically misaligned agencies misaligned with the President. Observations are classified as misaligned if the value of the relevant variable is below the mean of alignment, and aligned otherwise. My theory implies that the probability of coalition formation should be greater when agencies are misaligned with the President and should be highest for aligned agencies that are misaligned with the President.

Table 3 shows that, on average, the probability of coalition formation is greater when agencies are misaligned with the President (0.277) rather than aligned (0.212), consistent with the implications of the theory. The table also shows that the probability of coalition formation is greatest when agencies are misaligned with the President but aligned with each other (0.303), again consistent with the theory. The probability of coalition formation among aligned agencies with misaligned presidents is significantly higher than the other three conditions ($p < 0.001$) and the other three conditions are statistically indistinguishable. Of course, cross-tabulated probabilities do not account for confounds or the grouped structure of the data; therefore, below I present the results from the fully specified linear probability model from equation 1.

Table 4 displays results from estimating variants of the general equation presented in equation 1. Models 1 and 3 do not include the interaction term and indicate that, on average, ideologically aligned agencies are more likely to form coalitions, although the coefficient on *agency alignment* is estimated with high uncertainty leaving me unable to reject the null for Hypothesis 1. However, my main hypothesis is a conditional one: when agencies are ideologically close to each other

Table 4. Executive coalition building

	Dependent variable:			
	Coalition formation			
	(1)	(2)	(3)	(4)
Agency	0.094	0.088	0.038	0.007
Alignment	(0.070)	(0.068)	(0.093)	(0.093)
Presidential	-0.229*	-0.296**	-0.322**	-0.394***
Misalignment	(0.098)	(0.100)	(0.112)	(0.114)
Agency Alignment ×		0.974***		1.256***
Pres. Misalignment		(0.267)		(0.278)
Overlapping			-0.009***	-0.010***
Laws			(0.002)	(0.002)
Presidential			-0.047*	-0.048*
Attention			(0.020)	(0.020)
House			0.512	0.437
Misalignment			(0.289)	(0.293)
Senate			0.043	0.051
Misalignment			(0.027)	(0.027)
Court			-0.126	0.001
Misalignment			(0.248)	(0.252)
Log(Total Rules)			-0.087*	-0.103**
			(0.040)	(0.039)
Employment			-0.004	-0.014
Difference			(0.044)	(0.044)
Politicization			-0.011	-0.012
Difference			(0.069)	(0.069)
Average			-0.027	-0.021
Politicization			(0.016)	(0.016)
Observations	1,953	1,953	1,953	1,953
Dyad & Term FEs	Yes	Yes	Yes	Yes
Adjusted R ²	0.453	0.458	0.480	0.486

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Note: Unit of analysis is the dyad-year. Heteroskedasticity-corrected standard errors clustered by dyad reported in parentheses.

and ideologically distant from the President they will form coalitions because presidential misalignment is a necessary condition for agencies to turn to coalition building to optimize their autonomy given their subsidiary position in the American separation of powers system.³⁰ Models 2 and 4 include the interaction term between *agency alignment* and *presidential misalignment*.

Interpreting these models is complicated since the parameter of interest results from the interaction of two continuous variables. To aid in interpretation, Figure 3 displays the estimated marginal effect (i.e. the change in the probability of coalition formation from a unit increase in the independent variable) of *agency alignment* at all observed values of *presidential misalignment*. The marginal effects plot, derived from model 4, supports Hypothesis 2 since the marginal effect of *agency alignment*

³⁰Although the coefficient on *presidential misalignment* is negative and significant across all four models, any other specification or aggregation of the data renders the coefficient indistinguishable from zero, so I do not put much weight on the estimate (see Appendix C).

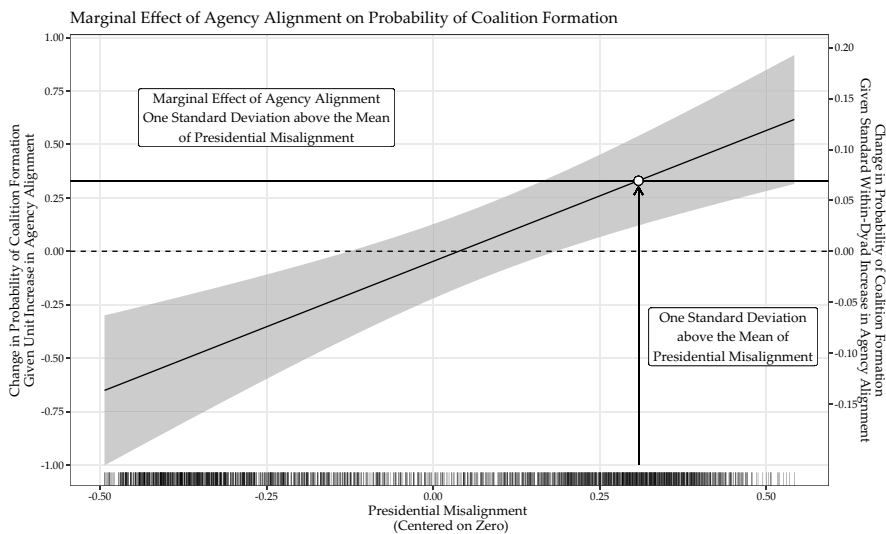


Figure 3. Marginal Effect of Agency Alignment. The rug on the x-axis displays the density of *presidential misalignment*. Marginal effects estimated from model 4 in Table 4. The left y-axis plots the change in the predicted probability of coalition formation given a unit increase in *agency alignment* at the value of *presidential misalignment* on the x-axis, and the right y-axis displays the change in probability of coalition formation given a standard within-dyad change in *agency alignment* at the value of *presidential misalignment* on the x-axis. The white point indicates the marginal effect of *agency alignment* when *presidential misalignment* is one standard deviation above the mean, and the horizontal line connects the point to the two y-axes to ease interpretation.

on coalition formation is increasing in *presidential misalignment* and is positive above the mean of *presidential misalignment*.

When two agencies are both ideologically distant from the President, they become more likely to form a coalition as the two agencies themselves become ideologically closer to each other. At one standard deviation above the mean of *presidential misalignment*, the marginal effect of *agency alignment* on the probability of a joint rule is about 0.4, which, when scaled by the typical within-dyad change in *agency alignment* indicates about a 8.8 percentage point increase in the likelihood of collaboration, about a 36% increase from the mean probability of promulgation, from a 24.5% probability of joint promulgation to a probability of 33.3%, which corresponds to about forty-four additional dyads forming coalitions, on average, each presidential term.

Figure 3 also shows that *agency alignment* does not have a positive effect on the probability of coalition formation when two agencies are both aligned with the President. These findings are consistent with my theory that agencies are only incentivized to collaborate when they are both ideologically distant from the President in order to signal importance or efficiency and dilute sanctions. When agencies are ideologically aligned with the President, any rule they promulgate will likely face little opposition from the President or OIRA, obviating the need to take on the additional transaction costs associated with forming a coalition with another agency.

Mechanism test

The results presented above are consistent with the theory that agencies form coalitions in part as signals that their policies are efficient and should be maintained by political overseers and in part as insurance to dilute an inevitable sanction. Both mechanisms, signaling and insurance, imply that misalignment with the president and alignment among the agencies are necessary for agencies to prefer coalition building to solo policymaking; that is to say, both mechanisms are observationally equivalent when analyzing only agency behavior. But the two mechanisms imply agencies should expect different behavior from the president at different levels of misalignment. Signals are meant to avoid a sanction whereas insurance is meant to reduce the cost of oversight by sharing the burden with coalition partners. Although agencies should form coalitions when they are misaligned with the president, they should expect the president, through OIRA, not to request regulations produced by coalitions be changed when agencies are slightly misaligned with the president since the coalitions send a signal of efficiency; but when agencies are extremely misaligned with the president, agencies should expect the president to request revisions to their proposed policies and form coalitions instead as insurance.

To test this mechanistic expectation, I collected data on OIRA regulatory review from the *Unified Agenda* to analyze first whether OIRA is more likely to allow policies promulgated by coalitions to move along the regulatory process without revision, and second whether OIRA is least likely to request regulatory revisions when agencies form coalitions and are moderately misaligned with the president. The results provide evidence that coalitions do in fact send credible signals of efficiency. OIRA is less likely to request regulatory revisions to policies promulgated by coalitions. The results also provide evidence consistent with both the signaling and insurance mechanisms of the theory as the relationship between OIRA review of policies promulgated by coalitions is U-shaped, with OIRA least likely to request revisions of policies promulgated via coalition from agencies moderately misaligned with the President.³¹

Table 5 presents ordinary least squares regression results from regressing a binary indicator for whether OIRA requested revisions to a rule on a binary indicator for whether that rule was promulgated by a coalition or not. Models one and two include year fixed effects, and model two additionally controls for whether OIRA deemed the rule economically significant, major, or whether it implicates federalism. On average, OIRA requests regulatory revisions from coalitions about 13.5 percentage points less than from agencies that promulgate rules on their own. This estimate is substantively large as it is about twice the magnitude of the effect of

³¹Coalitions among agencies aligned with the president should not occur in equilibrium if agencies only form coalitions as signals or insurance since aligned agencies neither need to signal nor insure themselves since the president likely agrees *ex ante* with policies they produce. Therefore, when agencies aligned with the president form coalitions, the president relies on their prior belief that the policy is efficient and may sanction if that belief is sufficiently low. On the other hand, when agencies are moderately misaligned and the president observes a coalition, they never sanction in equilibrium. So, while counter-intuitive, presidents should be more likely to sanction agencies that form coalitions that are aligned with the president than those that are moderately misaligned.

Table 5. OIRA less likely to request regulatory changes from coalitions

	<i>Dependent variable:</i>	
	OIRA request change	
	(1)	(2)
Produced by Coalition	-0.138 [*] (0.057)	-0.134 [*] (0.055)
Economically Significant		0.041 (0.028)
Major		0.067 ^{**} (0.023)
Federalism Implications		0.017 (0.031)
Observations	8,622	8,622
Year FEs	Yes	Yes
Adjusted R^2	0.099	0.106

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Note: Unit of analysis is the rule. Heteroskedasticity-corrected standard errors clustered by year reported in parentheses.

major regulations, those that are likely to result in an annual economic effect of at least one million dollars.

Table 5 provides evidence that OIRA is more deferential to policies produced by coalitions, but more can be extracted from the data. The theory predicts that, when forming coalitions, agencies should expect little resistance when moderately misaligned with the president since the coalition can send a credible signal, yet agencies should expect OIRA to meddle in the regulatory process when they are extremely misaligned with the president. Therefore, Table 6 presents both ordinary least squares and Heckman selection model results from regressing the proportion of policies an agency produced in a presidential term via coalition for which OIRA requested revisions on the distance and squared distance between each agency's Chen and Johnson (2015) ideal point estimate and the president's DW-NOMIANTE ideal point estimate for each presidential term. Since not all agencies formed a coalition each presidential term leading to an undefined proportion of OIRA requests – and the preceding analysis makes clear that decisions to form coalitions are strategic – the Heckman models allow me to account for selection into the sample of agencies that formed coalitions. The first step of the Heckman models estimates via probit regression the probability that an agency enters a coalition as a function of presidential misalignment, politicization, and agency and presidential term fixed effects, and the second stage estimates the relationship between presidential misalignment and OIRA's review rate.

Models 1 and 3 do not include the polynomial and instead only estimate a linear effect which comports with a basic spatial model of oversight where OIRA requests changes from misaligned agencies. However, the theory proposed in this article predicts a nonlinear effect, so models 2 and 4 include the quadratic term. Each model additionally controls for each agency's politicization ratio and the baseline probability that OIRA requests changes to policies produced by each agency.

Table 6. Presidential misalignment and OIRA review of coalitions

	Dependent variable:			
	Pr(Change Request): Coalition Policy			
	OLS		Heckman selection	
	(1)	(2)	(3)	(4)
Presidential Misalignment	0.110 [*] (0.049)	0.106 [*] (0.048)	0.107 [*] (0.053)	0.102 [*] (0.052)
Presidential Misalignment ²		0.168 [*] (0.074)		0.210 [*] (0.085)
Politicization Ratio	-0.222 (0.133)	-0.227 (0.145)	-0.158 (0.168)	-0.078 (0.166)
Pr(Change Request): Solo Policy	0.445 (0.284)	0.226 (0.345)	0.436 (0.232)	0.141 (0.255)
Observations	42	42	83	83
Adjusted R ²	0.161	0.223	0.146	0.235

p* < 0.05; *p* < 0.01; ****p* < 0.001.

Note: Unit of analysis is the agency-presidential term. Models 1 and 2 report heteroskedasticity-corrected errors clustered by agency. Models 3 and 4 report the second stage of a Heckman selection model as described in the text.

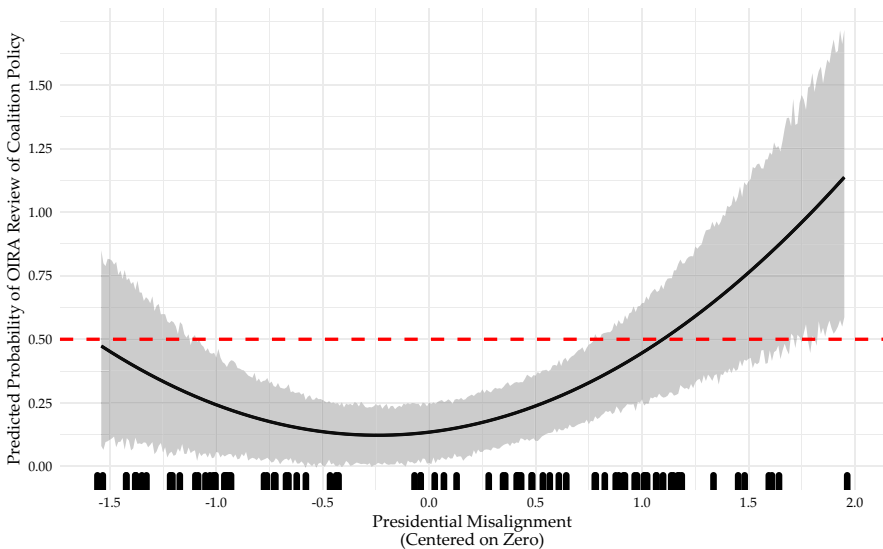


Figure 4. Relationship between Presidential Misalignment and OIRA Review of Coalitions. Ribbon represents 95% confidence interval of simulations. Rug along x-axis displays the density of presidential misalignment.

To ease interpretation of the polynomial models, Figure 4 displays predicted values from 175,000 simulations of the second stage of the Heckman model summarized in model 4 of Table 6. Consistent with the theory, OIRA requests that policies promulgated by coalitions of agencies moderately misaligned with the president be

reviewed much less frequently than those promulgated by coalitions that are either aligned or extremely misaligned with the president. The insurance mechanism helps explain the counterintuitive finding that agencies extremely misaligned with the president take on the additional costs of coalition building even when there is an almost one-hundred percent chance that they will face costly resistance from OIRA. By forming a coalition, each agency can dilute OIRA's costly resistance that they know is incoming.

Taken together, the analyses of why agencies form coalitions and how OIRA evaluates policies formed by coalitions are consistent with the theory that agencies form coalitions as signals about the efficiency of their policies or as insurance to dilute oversight. Agencies form coalitions when misaligned with political principals in order to convince principals that agency autonomy ought to be respected. If agencies are extremely misaligned with principals, however, they form coalitions not to signal but rather to insure themselves against an incoming sanction.

Limitations

Although the empirical results presented above are consistent with the theory presented in this paper, there remains an empirical limitation that is important to highlight. It is possible that joint rulemaking is required by some external actor (e.g. Congress, the president, or a court). To account for this, I consulted McCann and Shipan (2022) to see how many laws delegate to the two agencies forming the coalition, tested a random sample of joint rules to see whether they cited a law requiring collaboration, and conducted interviews with federal bureaucrats to learn about the processes used to produce joint rules. These measures, however, are circumstantial – and the interviews do not provide a representative look into joint rulemaking procedures across the federal government. We do not know for certain whether the formation of a particular coalition was mandatory. Ideally, for each dyad-year, the data would tell us whether there was some statute or unfulfilled delegated authority that the agencies could draw on. Future work should attempt to link each rule to its express statutory authority and determine whether that rule was indeed produced voluntarily by the agencies.³² In addition, future work should test whether coalition building produces better policies.

Conclusion

Executive coalitions are commonplace in American politics. Coalitions responded to the coronavirus pandemic in 2020,³³ the Deepwater Horizon spill in 2010 (75 FR 37,712), the enforcement of Prohibition in the 1920s, and the management of reservations for indigenous people in the 1840s (Kaiser 2011). Despite their ubiquity in American politics, executive coalitions have received little attention from political

³²See Peterson and Napolio (2022) for a paper that does link rules to statutory authority, but does not test whether rules were mandatory.

³³Sun, Lenna H., Josh Dawsey and William Wan. "CDC, FEMA have created a plan to reopen America. Here's what it says." *Washington Post* (April 14, 2020). <https://www.washingtonpost.com/health/2020/04/14/cdc-fema-have-created-plan-reopen-america-heres-what-it-says/>

scientists. This article represents an attempt to develop and test a theory of why executive coalitions form.

In this article, I have advanced a theory of executive coalition building that takes seriously the unique environment in which bureaucratic agencies operate. In contrast to legislative coalition building – where the goal is to maximize particularistic benefits to discrete and mutually exclusive constituencies or overcome social choice problems (Aldrich 2011; Baron 1989; Baron and Ferejohn 1989) – or technocratic explanations for interagency coordination – where the goal is information sharing or the agencies simply implement presidentially induced coordination (Freeman and Rossi 2011, 2012; Saito 2020) – I argue that agencies build coalitions as costly signals to overseers about the efficiency of their policy choices in order to optimize their autonomy given their subsidiary positions in the federal government. Incurring the costs associated with coalition building, however, is only worthwhile when failing to form a coalition and acting alone is likely to be met with a political sanction. Therefore, misaligned preferences over policy alternatives between the agencies and their principal are a necessary condition for collaboration.

The empirical analyses attending the model provide support for the strategic theory I advanced. Leveraging a new dataset of agency coalitions, I have shown that agencies form coalitions when the transaction costs associated with coalition building are low and the probability of individual policymaking going unsanctioned is low. This article represents a break with extant work on bureaucratic politics by considering networks of agencies rather than studying agencies in isolation either through in-depth case studies or cross-sectional analyses.

As with all social scientific theories that derive empirical implications from theory, the mechanisms explicated in the theory – costly signaling and sanction dilution – are only sufficient for the outcomes of interest and therefore cannot explain every coalition ever formed in the federal executive branch. Agencies may form coalitions for more technocratic reasons like information sharing and reducing redundancies or they may be induced to form coalitions by political principals or interest groups. They may also form coalitions for idiosyncratic reasons. In this article, however, I have detailed and defended a strategic and political explanation for coalition building in the executive branch and found robust empirical evidence across diverse agencies that such a mechanism both exists and can explain a significant portion of executive coalitions.

The theory I have advanced here implies several other empirical implications that future work ought to consider. Since I argue that one of the main purposes for coalition formation in the executive branch is to manipulate the beliefs of political overseers and convince them that bureaucratic policy is efficient, future work should consider whether political overseers other than OIRA defer to agency policy more frequently when agencies form coalitions to produce those policies. For example, agencies should win more frequently in court when the policy in question was produced by a coalition, as implied by Freeman and Rossi (2011, 2012); Congress should sanction agencies less frequently when they form coalitions, and interest groups or other regulated entities should view policy as more efficient or informed when produced by coalitions.

Supplementary material. The supplementary material for this article can be found at <https://doi.org/10.1017/S0143814X23000314>

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